REMARKS

In paragraph 3 of the Action, claims 16-19, 21, 23, 24 and 26-28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al. in view of Glaubitt et al.

On page 2, last line to page 3, line 6 of the Action, it was held that the terms "is formed … said precursory layer" introduces process limitation to the respective product claims.

In order to solve the problem deemed as the process limitation, an interview was made on March 4, 2004 to discuss claim 1. As a result of the interview, it was agreed to change the languages of claim 16. Claim 16 has been amended according to the agreement at the interview. The Examiner's advice at the interview is appreciated.

As recited in claim 16, an antireflection film is formed of an organic film, a hard coating layer coated on the organic film, a first layer having an index of refraction and coated on the hard coating layer, and a second layer having an index of refraction lower than that of the first layer and coated on the first layer. The first layer is formed of a synthetic resin and metallic oxide particles contained in the synthetic resin. The metallic oxide is at least one selected from the group consisting of ZrO_2, TiO_2, NbO, ITO, ATO, SbO_2, In_2O_3, SnO_2 and ZnO, and the synthetic resin is ultraviolet ray curable resin or electron beam curable resin. The second layer partly enters into the pores to firmly bond to the first layer through the pores,

The first layer comprises a porous precursory layer having an index of refraction not greater than 1.64, and the second layer comprises a liquid material coated on the porous precursory layer made integral with pores of the porous precursory layer. When the first and second layers are integrally formed, the first layer has the index of refraction not smaller than 1.64.

In Oka et al., an antireflection film as shown in Fig. 16 is formed of a transparent substrate film 21, a hard coat layer 23 bonded to the substrate film 21 through an adhesive layer 22, a layer 25 having a high refractive index laminated on the hard coat layer 23, and a layer 24 having a low refractive index. An antireflection film as shown in Fig. 21 has a substrate 31, a resin layer 32, an ultrafine particle layer

34 with high refractive index deposited on the resin layer 32, and an ultrafine particle layer 33 with low refractive index. The ultrafine particle layers 33, 34 are embedded in the resin layer 32. The ultrafine particles having a high refractive index includes ZnO, TiO_2, CeO_2, SnO_2, ITO, and so on. The ultrafine particles having a low refractive index includes LiF, MgF_2, and so on.

In the invention, the first layer formed of the synthetic resin has pores therein. In Oka et al., however, it is not disclosed or suggested that pores are formed in the resin layers 25 and 32.

In the invention, the second layer deposited on the first layer partly enters into the pores of the first layer to be firmly bonded to the first layer through the pores. In Oka et al., since the pores are not formed in the resin layers, the layers deposited on the high refractive index layer are simply laminated on the high refractive layers.

Further, in the invention, the first layer comprises a porous precursory layer having an index of refraction not greater than 1.64, and the second layer comprises a liquid material coated on the porous precursory layer made integral with pores of the porous precursory layer, wherein when the first and second layers are integrally formed, the first layer has the index of refraction not smaller than 1.64. Namely, the index of refraction of the first layer is changed by the liquid material forming the second layer. In Oka et al., since the layers do not have pores, the change of the index of refraction of the layer is not considered at all.

The features of the invention are not disclosed or suggested in Oka et al.

In Glaubitt et al., a highly porous optical antireflection coating is formed by applying a colloidal dispersion derived from hydrolytically condensing, in the presence of water and a catalyst, one or more silicon compounds of the general formula R_aSiX_{4-a}. The coating also includes colloidally dispersed organic polymers.

In the invention, although the first layer includes pores, the liquid material forming the second layer partly enters into the pores. Thus, the first layer includes the material for forming the second layer

filled in the part of the pores. However, the coating in Glaubitt et al. has only pores therein. The first layer of the invention is entirely different from the coating of Glaubitt et al.

In case Oka et al. and Glaubitt et al. are combined, the material used in Glaubitt et al. may be used instead of the layer 25 or 32. However, such a combination does not disclose the first layer of the present invention. In the invention, the first layer comprises a porous precursory layer having an index of refraction not greater than 1.64, but when the first and second layers are integrally formed, the first layer has the index of refraction not smaller than 1.64.

As explained above, even if the cited references are combined, the features of the invention are not obvious from the cited references.

Reconsideration and allowance are earnestly solicited.

Respectfully submitted,
KANESAKA AND TAKEUCHI

by Manabu Kanesaka

Manabu Kanesaka
Reg. No. 31,467
Agent for Applicants

1423 Powhatan Street
Alexandria, VA 22314
(703) 519-9785